



### GREENSBURG, KANSAS



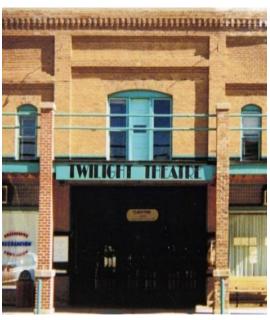
- 107 Miles West of Wichita, Kansas
- Established: 1886
- Pre-tornado Population: 1,400
- Primary Industry: Agriculture
- Kiowa County Seat
- Home of the World's Largest Hand-dug Well (The Big Well)



# GREENSBURG PRE-TORNADO







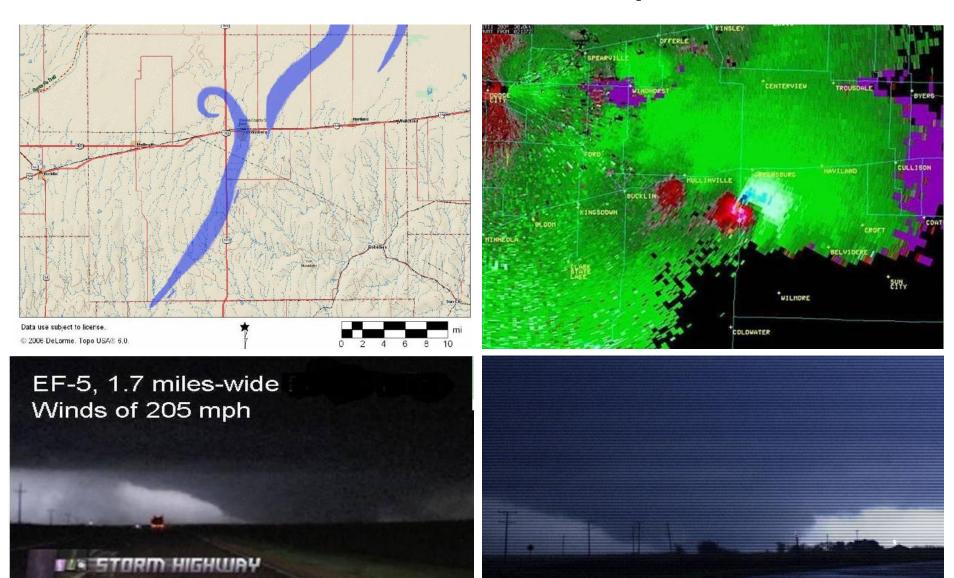








# MAY 4, 2007 9:45pm





# TORNADO AFTERMATH











## TORNADO AFTERMATH







### REBUILDING











### REBUILDING

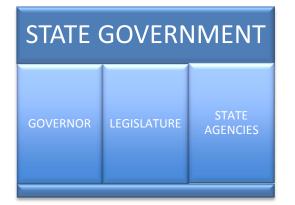
GREENSBURG SUSTAINABLE COMPREHENSIVE PLAN PROJECT PROCESS







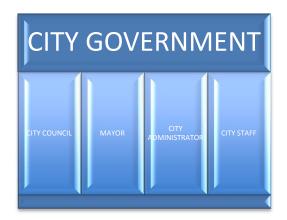
#### WORKING TOGETHER TO REBUILD





















# **GREENSBURG TODAY**



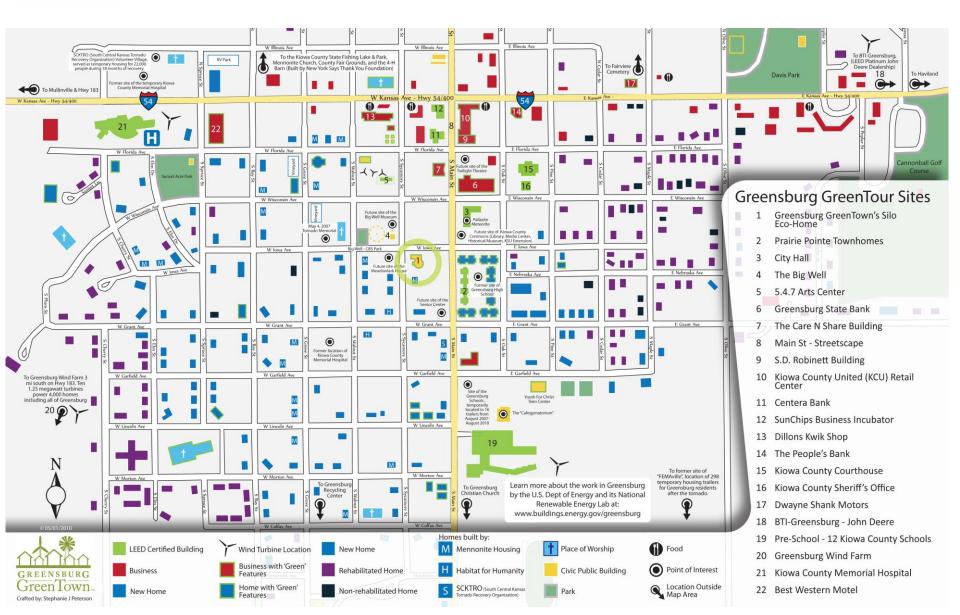


# **GREENSBURG TODAY**





### **GREENSBURG**



# GREENSE COUNTY MEMORIAL HOSPITAL

#### **LEED PLATINUM**









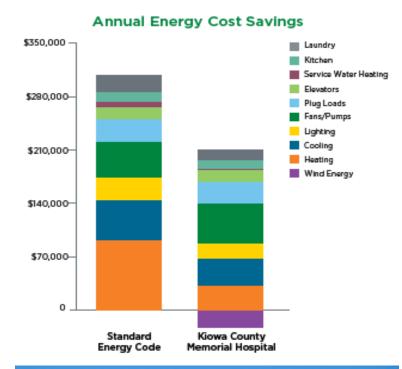




# GREENSE LOWA COUNTY MEMORIAL HOSPITAL Green Town.

#### I FFD PI ATINUM

- 15 bed (and 2 rural clinics) LEED Platinum Critical Care Hospital
  - First in the Nation
- Annual energy cost savings of 59%
- 2 50 kW turbines
- Rainwater collection pond is aesthetic element and is used to flush toilets + wash linens







#### BTI – GREENSBURG

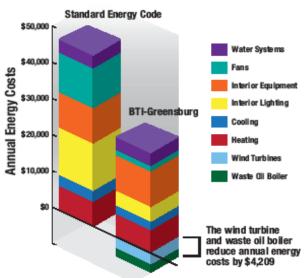


# (JOHN DEERE DEALERSHIP) LEED PLATINUM

- LEED Platinum Business a new standard for John Deere dealerships nationally
- Radiant flooring provides heat. On-site waste oil boiler is used to generate hot water
- 2 small scale wind turbines provide additional power and showcase the new John Deere Wind Division. BTI also services the Greensburg Wind Farm
- 50% water usage reduction and 55% energy saving and cost reduction



#### **Annual Energy Cost Savings**





#### GREENSBURG CITY HALL



#### LEED PLATINUM

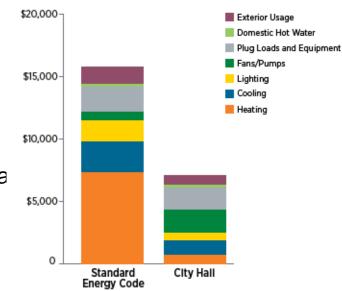






**Annual Energy Cost Savings** 

- First LEED Platinum City Hall in the Nation
- Water collection system tied to Main Street
- Building integrated PV, Green Roof, Geothermal Hea Pumps, Reclaimed Materials, Natural Lighting, Xeriscaping
- ICF Wall Construction





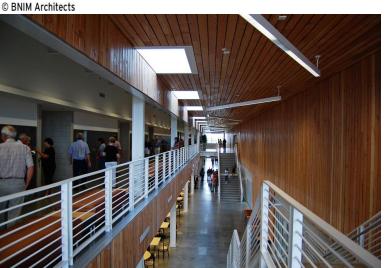
### KIOWA COUNTY SCHOOLS



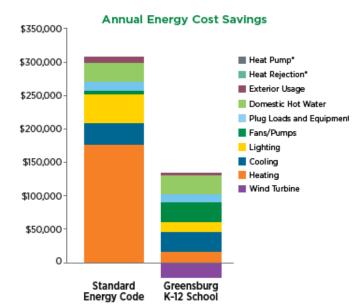
#### LEED PLATINUM (PENDING)



- First LEED Platinum School in Kansas
- Needs little to no artificial light even on a cloudy day – including in gyms
- Energy use + cost reduction of 50-60% with 50 kW wind turbine







# GREENSBURG KIOWA COUNTY COURTHOUSE



#### LEED GOLD

- LEED Gold for Existing Buildings
- Originally Built in 1914, the Courthouse was one of a handful of buildings left standing after the tornado. It was renovated and reopened in July 2009 and maintains its original character.
- Along with Sheriff's Dept., saving more than 54% yearly on energy costs.









# GREENTOWN'S CHAIN OF ECO-HOMES

SILO ECO-HOME











#### Chain of Eco-Homes



**History** – Launched in the winter of 2009, this project is a series of demonstration eco-homes designed to be "living laboratories" featuring a variety of building techniques, prices, sizes, energy efficiency features, and green living products and services. Each home will be unique, and serve both as an informational center and as eco-lodging where visitors can experience green living first-hand. The ecohomes will also be monitored to demonstrate how each type of construction technology performs under local conditions, and to determine actual energy savings.

- Silo Eco-Home
- Meadowlark House

We are in the planning stages to build 2 projects in Joplin.













## **GREENSBURG WIND POWER**

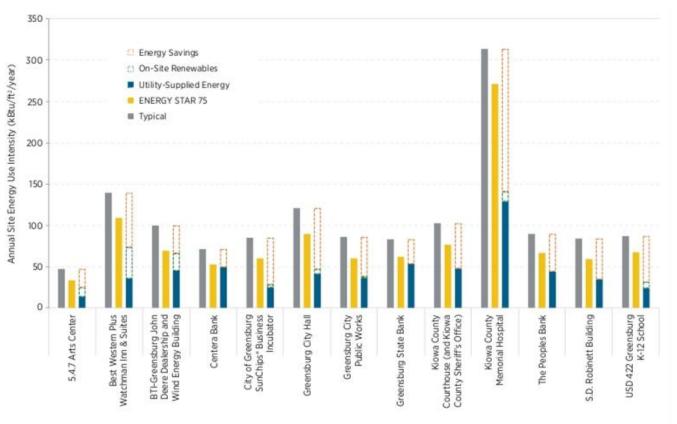
#### **WIND FARM**

- 10 turbines at 1.25 megawatts of power each
- 100% renewable energy, 100% of the time
- Enough power for 4,000 homes and businesses (Greensburg has 300 homes)
- Average wind speed of 17 mph
- Kansas has 2<sup>nd</sup> highest potential for wind power in the US



# NREL Study of Energy Savings

**Energy Savings in Greensburg** – In February of 2012, the National Renewable Energy Laboratory completed a study of the 13 most sustainable buildings constructed in Greensburg. The results found that the projects are performing better than expected, saving the city over \$200,000 in energy costs annually.



The typical building and ENERGY STAR 75 building comparisons are based on the Commercial Buildings Energy Consumption Survey (CBECS) and ENERGY STAR's Target Finder at www.energystar.gov/index.cfm?c=new\_bldg\_design.bus\_target\_finder.















**BUILDING A SUSTAINABLE FUTURE** 

















### **COMING UP:**

- APRIL 19 Third Thursday
- MAY 12 Info Session for Residents
- MAY 22 Day of Unity Walk



### For more info:

www.greentownjoplin.org www.greensburggreentown.org